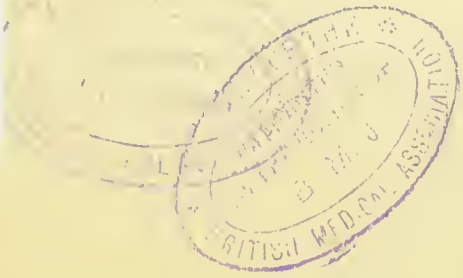

COPROSTASIS.

COPROSTASIS:

ITS CAUSES, PREVENTION AND TREATMENT.

BY

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PREFACE.

The following pages contain Chapters VIII, IX, X, XI, XII and XIII of "Contributions to Practical Medicine," as they appear in the fifth edition, 1912, of that book. For the convenience of my professional brethren, these six chapters now are offered to them in a separate form in this little book, because coprostasis has been prominent lately in medical research, because some details of this subject are somewhat controversial and so call for records of experience of medical practice, and because these chapters include many points of diagnostic and therapeutic procedure as they have presented themselves in work amongst patients. One's previous findings and writings upon this perennial and daily topic of a physician's practice stand here revised with rigour and augmented by the fruits of later experience, with the hope of usefulness. Coprostasis sustains our close attention by the great frequency of its occurrence, and because no part of our practice is more fruitful of therapeutic success, if remedial measures be based upon the removal of morbid causes, as determined by adequate diagnostic appreciation of such

causes, and by a skilled understanding of the individualities of each case by those who alone can appreciate them. By the light of recent physiology and by the progress of pathology, and by the further development of our artificial civilization, the whole subject of fæcal passage has been fraught more and more with a wide scientific and practical interest. This interest will be found to suggest some reforms in personal habits and some improvements in our "temples of Cloacina." In the complex and numerous maladies with which coprostasis may be associated the effects of routine treatment directed against a prominent symptom by unskilled effort is disastrous. Each case has its own peculiarities, and should be skilfully investigated in its causal relations and associated details, and then diagnosed, treated and watched by one of our faculty. "Moniti meliora sequamur."

31, Temple Row,
Birmingham, 1912.

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THE TREATMENT OF HABITUAL CONSTIPATION.*

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I PURPOSE to offer to you some considerations and observations upon habitual constipation, and especially upon its successful prevention and upon its successful treatment. I venture to do so because the details upon which I shall touch have especially and long engaged my attention as a physician, and because I hope I may be fortunate enough to lead the way to a discussion from which we may all reap substantial profit. It is not my intention to

* An Address delivered before The Leicester Medical Society, December 7th, 1900; revised and rewritten for the edition of 1904; and again, with copious augmentations, for this present edition.

attempt anything like a complete examination of the whole question of constipation, much less of intestinal obstruction. The subject, if treated systematically, could not be dealt with, even in a cursory manner, within the limits of the time at my disposal. You know that the literature of the subject is very extensive, that it reaches back to the earliest records of medicine, and that I could not give a summary of it within the compass of a readable paper; you know that intestinal lesions, and especially those pathological changes which tend to fæcal accumulation and to slow fæcal passage, have shared in being subjects of the analytical precision which is the leading note of the medicine of our century, and that I could not recount their details within a single sitting of your society. Keeping to what is practical in the pathology and practicable in the treatment of some of the commoner forms of constipation, and especially of habitual constipation, as I have met with them in my own clinical experience, I purpose to ask you to consider with me the progress of our art in one of the most important and most striking of the various departments of its usefulness.

We must avoid a common confusion of terms in the use of the familiar words constipation and intestinal obstruction. It is not strictly

accurate to speak of intestinal obstruction, as some writers have done, as an exaggerated, an ultimate, form of constipation. It is quite true that some of the worst and most fatal forms of intestinal obstruction are usually long-marked by a prodromal constipation, as, for example, cancerous constrictions of the larger intestine. But the phrases constipation and intestinal obstruction, when properly understood, do not merely mark different degrees of a similar result. They apply to different extents of the intestinal tube. Constipation concerns the large intestine only; intestinal obstruction the whole of the intestines, small as well as large.

For the accurate diagnosis and for the intelligent therapeutics of constipation we must have a clear conception of what constipation is. Here, briefly, is a definition of it which I have long held:—Constipation is slow fæcal progress in the large intestine, where alone true fæces are to be found. Intestinal obstruction is a grave disturbance of intestinal permeability in any part of the intestinal canal; it is practical impermeability of the intestines to the passage of their contents, either in the large or in the small intestine, in any part of the bowel, from pylorus to anus. "Constipation is essentially slow progress of the fæculent mass from the

cæcum to the anus."* It is this, and nothing more than this, so far as the mere position of the difficulty concerns us, albeit the pathological causes of constipation, when organic, and when such as narrow the lumen of the bowel, are apt, in their extremer developments, to determine intestinal occlusion. Coprostasis is a good old name for fæcal stagnation. Habitual constipation is more or less imperfect fæcal stagnation between the cæcum and the anus.

What is the human fæx? This is a question very pertinent to our purpose. Let us answer it briefly, and strictly to illuminate the therapeutic issues of the subject. Our usual general idea is that a healthy human fæx is a pasty mass made up of insoluble and superfluous food, mixed with intestinal mucus, pancreatic and other glandular secretions, and moulded into a sausage-shaped form in the large intestine, with numerous secondary convexities marking the concavities of that tube. We are apt to forget that there is much evidence that fæces, besides being all that I have just stated, are, in an important physiological sense, in an important pathological sense, and in an important therapeutic sense, much more—namely,

* This sentence is quoted from a clinical lecture on "Retention of Fæces," by Dr. Matthews Duncan, published in *The Medical Times and Gazette*, November 8th, 1879.

in part an excretion formed by secretion. If we recognise that fæces are in part a secretion from the blood of noxious excretory products of life and activity, the elimination of which is essential to health, and the non-elimination of which causes various sufferings, we shall understand that the therapeutics of constipation is much more important than it would seem to be, if we do not include this secretory view of the fæces in our consideration. Let me quote to you one or two sentences on this point from Dr. Headland, in his great work on the Action of Medicines. He says:—"It was some time ago supposed by many that the fæces consisted simply of those parts of the food which remained unabsorbed, and that all purgative medicines alike acted by exciting the peristaltic motion of the bowels, and causing thus the ejection of these undigested matters. Such an opinion is now rarely maintained. Although very little is known of the separate functions of the glands of the intestinal mucous membrane, yet it is generally supposed that the fæcal matters consist in great part of excrementitious substances which are separated by their means from the blood. The excretion of fæces continues when no food is taken. It is known to go on with starving men, and with patients in fever. Liebig argues for the secretion of the

greater part of the fæces, on the ground that they contain nitrogenous matters, whereas all the nitrogenous parts of the food should be absorbed for the purposes of nutrition. Thus these are probably the excreted products of changes in the system, which it is the province of the bowels to separate from the blood."

The manifold errors of habits, of effort, and of diet which tend to constipation are well recognised by our profession. In the discovery of some of these, and in their timely and persistent rectification, we can cure, without drugs, many of the slighter forms of fæcal retention. We should make quite sure we exhaust these measures in the treatment of every case of habitual constipation. In the slighter cases, such non-medicinal treatment is usually sufficient for a good result; in severer cases, when drugs and instrumental aid cannot be avoided, all that well-ordered habits, well-directed efforts, and well-chosen diet can do should be regarded as the indispensable adjuvants of a more direct therapeusis.

In the treatment of habitual constipation, I have formed certain rules of practice, which my experience has abundantly confirmed. They are these:—(1) We should never leave the medicinal treatment of constipation of the bowels to our patients. (2) We should never

prescribe drugs in the treatment of habitual constipation until we find that the constipation cannot be cured without such medicaments. (3) We should never prescribe drugs in the treatment of habitual constipation without the conjoined use at the same time of a well-selected and judicious combination of the numerous adjuvants of natural alvine relief which are at our disposal, and which we should especially select by our experience in practice, and dispose in each particular case of costiveness, according to the individualities of the patient. No one but a very skilful prescriber can treat constipation best. To open the bowels is not to cure constipation, but only to relieve for a few hours one of its symptoms. The second of these canons, that of always withholding drugs until drugless methods prove insufficient, establishes a sound therapeutic principle, and is a counsel of perfection which is salutary in its aim, and should be followed generally; but the insistence of patients for a purgative dose when alvine dejections are defective has taught me that patients are sometimes right in this matter, and that a cathartic dose may be an essential preliminary to a more causal cure, and give a fair and the best start for successful treatment by further medication, and by dietetic, disciplinary, and other hygienic methods.

Now that we are engaged in the particular consideration of the therapeutics of habitual constipation, it is useful to expand our definition of the malady by the addition of some definitions of the causes of the affection. Habitual constipation is a penalty of our imperfect civilization. It is due to a habitual abstinence from emptying the rectum whenever the physiological (or natural) urgency to empty it is felt; it is also due to habitual defæcation when seated upon a high seat; it is also due to habitually diminished activity of the abdominal muscles, including the psoai and iliaci, of the respiratory muscles, and of the muscular fibres of the large intestine. It is also due to habitual abstinence from fruit. Each of these causes is avoidable. Each of these causes should be avoided before a drug is taken for the cure of habitual constipation. For causal treatment, we may note, too, that fatness of abdominal walls and abdominal contents favours constipation, while constipation disposes to fatness, and especially to intra-abdominal fattiness. Here is a vicious circle, of therapeutic suggestiveness. In the cure of costiveness our therapeutic clues arise well from an old definition of the malady, namely:—"In constipation the fæces are hard, and may be retained from that cause, from weakness of the muscular coat of the large in-

testines, or from diseases of the anus, making defæcation difficult or painful."*

By habit, in a healthy person, the emptying of the rectum in defæcation, day by day, can become to some extent a regular rhythmical process, occurring at a fixed time, once in each twenty-four hours. The best time for this is after breakfast, when the stimulus of the entry of food into the stomach after the abstinence of the preceding night, aided by mental expectation, by habit, by a visit to a suitable place, and the assumption of a suitable bodily position, will very usually, and, by practice, with great regularity, excite the act of unloading the rectum and sigmoid flexure. Before going to bed is the best time for a person who suffers from hæmorrhoids; defæcation strains and protrudes them, and the horizontal repose of a night in bed favours hæmorrhoidal decongestion and subsidence. Such an effort should always be made, day by day, at the usual time, whether the desire to defæcate be felt at the time or whether it be not so felt. But, besides this, defæcation should always be attempted whenever the local urgency for it is felt. This feeling should never be "put off." If it be so postponed, what happens? The distended rectum empties itself, if it can, backwards into the sigmoid flexure,

* New Sydenham Society's Lexicon.

and the returned fæces are held up there if possible. Perhaps this holding up of fæces in the sigmoid flexure of the colon is often the determinant of cancer there. Malignant disease is more frequently met in that place in men than in women. Women appear to neglect to try for defæcation at a rhythmical time. But men "put off" more than women do; they like to defæcate at a fixed time, and at no other time. Defæcation, then, should be attempted whenever the rectal impulse thereunto is felt. The habit of fæcal retention in the rectum carries with it many dangers; locally, from irritation; remotely, from absorption. Cancer of the sigmoid flexure and rectum is practically unknown amongst our agricultural labourers; with them opportunities for opportune defæcation, and for defæcation in the natural position, are present in exceptional prevalence.

I think the general experience of my medical brethren will accord with my own, in our finding habitual constipation to be more prevalent amongst women than amongst men. The causes for such greater prevalence of the malady amongst women are to be found in irregularity as to the time of effort in defæcation, from procrastination therein, in the putting off the act, in relative feebleness of the muscular factors of the act, in the wearing of waistbelts, and in the

wearing of "stays" and corsets, and from inimbition, that is, from drinking water or watery fluids in insufficient quantity, from bad habit, bad example, or from a desire to diminish their urine.

The cure of habitual constipation must begin upon our plates, in the proper division of our food, and in the mouth, in its complete trituration and admixture with buccal secretions, by slow mastication; small morsels for each mouthful.

The best position of the body for successful defæcation, that is, for the complete and easy doing of the act, is the crouching position.* This is the natural position, the position assumed when defæcation is attempted upon the "ground." The parts concerned in the act are then in the best position for its accomplishment. Moreover — and this is an important consideration—the hernial openings are then guarded by their natural physiological protection, during the increased intra-abdominal tension which is a normal constituent of the act of emptying the lower bowel, and so the production of hernia from such tension is prevented. The inguinal form of intestinal hernia is a frequent result of straining at stool, when such

* "For this I squat on my hams." Mr. Jago, in his poem "The Scavengers," written about the year 1750.

straining is made in the usual position of the body upon a high seat. A fruitless effort at defæcation, when seated upon the usual high seat, (a seat generally of the height of eighteen inches from the ground,) will often be followed at once by success if the effort be thereupon renewed in the physiological attitude I have described. In habitual constipation I am accustomed to amplify and explain these considerations to the patient, and counsel the acting upon them before having resort to drugging. It will be found in practice that the resumption of defæcation in this natural position for the act will often make the exhibition of laxatives unnecessary, and if not quite unnecessary at the least restrict by much their employment. Especially may women be so advised; and they will be found to be the patients most benefited.

Certain habitual postures of the body favour fæcal sluggishness, or even fæcal retention in the large intestine; namely, a slouching posture, a stooping posture, and especially that form of arching backwards of the lower dorsal and lumbar spine, and doubling up of the abdomen, which occurs in sitting "all in a heap" in a large and low "easy" chair. The habitual assumption of this last attitude leads to the development of one or more deep transverse wrinkles in the skin, running horizontally

across the epigastrium. I think I have discovered these wrinkles. I observed and interpreted them long ago, and I know of no reference to them in print. Certainly the observation of them is very helpful in practice, in a causal diagnosis and in the cure of habitual constipation. This "all in a heap" position of the body embarrasses the movements of the abdominal contents in many ways, which will be obvious to the anatomist. Amongst these, it tends to fæcal retardation by the production of two additional angles in the large intestine, one in the ascending colon, and one in the descending colon, by an antero-posterior bend on each side below the hepatic and splenic flexures, respectively. The cure of habitual constipation without drugs certainly demands, on these grounds, that an erect carriage of the body should be cultivated habitually, and such a carriage is necessary to give fair play to any remedies whatsoever which we employ in the malady under our present consideration.*

Daily bodily exercise, especially out of doors and in sunlight, favours the emptying of the bowels. Such bodily exercise is a natural

* One of our medical poets, John Armstrong, M.D., wrote, in the year 1744, in his "Art of Preserving Health":

"To lean for ever cramps the vital parts,
And robs the fine machin'ry of its play."

hygienic activity, an exertion or action of the body conducive to the keeping of its organs and physiological functions in healthiness. There are several modes of such exercise which are of direct and especial use in the cure of habitual constipation. Exercises should be selected for this purpose which tend to promote biliary flow, such as deep respiratory movements, which bring into play the muscles of the abdominal walls, and which promote movement of those portions of the large intestine in which fæcal stagnation and accumulation is most apt to occur. Such are the indications to be fulfilled in practice in these cases. By keeping them in view we may select exercises which are especially suitable in particular cases. I will now mention certain exercises which I have found useful. Respiratory exercises are healthful in many ways, and should be performed daily, and they are useful for our present purpose. Three or four deep inspirations in succession, each taken slowly, whilst the waist is free from constriction, taken, say, just before breakfast and just before dinner, promote biliary flow into the intestine, (and bile is the natural laxative,) and promote also movement of the intestinal contents. Riding on horseback, too, is healthful in many ways; it may be performed daily, and best before breakfast, with the effect of helping

the habitual intestinal evacuation after that meal. Walking helps intestinal movement; running helps it more; jumping, more still. Cycling helps it too, if a fairly erect position of the body be preserved during such exercise. Progression "on all fours," on hands and feet, like a quadruped, with a cat-like movement of lateral flexion of the trunk at each step, before breakfast, helps intestinal movement very markedly. Various gymnastic forms of drill have been well arranged for the purposes of the promotion of biliary flow and intestinal movement. These can be quickly learned from a good drill master, and they may be practised daily in the treatment of habitual constipation with curative advantage. Furthermore, it is likely, for anatomical reasons, that sluggishness of fæcal movement in the large intestine is most apt to occur in two places, namely, in the cæcum and in the sigmoid flexure. Fæcal movement in these parts of the bowel may be excited and promoted by movements which bring the psoas and iliacus muscles, on each side of the body, into full play. For such movements, suitable daily exercises may be pursued, such as, for example, running upstairs by taking two steps of the stairs at each stride, which is an excellent exercise for giving a fillip to the sluggish parts. Soldiers have an exercise, called " knees

up," which is good for this purpose; while the subject of this drill stands erect each of his knees is brought in turn towards the front of the chest, the movement being aided by his grasping the moving knee with his hands and bringing it with a jamming motion, several times repeated, towards his trunk. "Pottering" on a pony, before breakfast, help much against coprostases about the sigmoid flexures.

My friend, Mr. Arbuthnot Lane,* bases coprostasis and its consequences upon surgical foundations, and he proposes and performs surgical operations for their treatment. He points out that the human organism has not yet adapted itself with physiological perfection to the erect posture. He teaches that our habitually erect posture during our waking hours leads to sagging downwards of abdominal viscera, and that such displacements cause certain intestinal kinks, which lead to stasis of intestinal contents, and require surgical treatment. (I venture to suggest the use of the verb to sag, as meaning displacement by gravity, especially in a vertical direction.) Mr. Lane pursues this subject with much detail in a valuable paper, in which he cites the effects of gastro-intestinal stasis, of kinks, and "pulls,"

* Surgeon to Guy's Hospital.

with consequent absorption of toxins, as they affect the appendix, the ovaries, the uterus, menstruation, the liver, the production of visceral cancer, respiration, tuberculosis, the skin, the mammæ, the kidneys, the sexual appetite, the mind, "neurasthenia," the pancreas, and the formation of gall-stones.* This is a wide range of indictment; but it comes from a good and experienced worker, who supports it with physiological and pathological evidence, and it commands our attention in practice.

Sagging of the abdominal viscera, as a cause of habitual constipation and of coprostasis, may be counteracted by the assumption for a while at intervals during our long waking hours of the recumbent posture, in dorsal decubitus, in which the abdominal viscera tend to upward displacement; by squatting upon the haunches upon the floor, tailor-like, in which ancient sartorial attitude viscera are pressed upwards and supported by the thighs; and by the wearing of a belt, especially in the condition known as "pendulous belly," such belt being adapted under medical guidance, after physical examination of the affected parts. Help in the same directions may be afforded by exercises in quadrupedal

* Civilisation in relation to the abdominal viscera, with remarks on the corset. By W. Arbuthnot Lane, M.S. (Lond.), F.R.C.S., &c., *The Lancet*, November 13th, 1909.

progression, which suit so well the quadrupedal pattern of our abdominal contents. Resting at mid-day in the horizontal position helps against overloading of the ascending colon. If the evacuant powers of the stomach be enfeebled, lateral decubitus on the right side in bed is helpful; if of the larger intestine, on the left side. It is good to sleep for the former portion of the night upon the right side, and for the later portion upon the left side.

As to corsets, those who wear them must submit the details of them to our judgment and direction, if we are to treat aright constipation or coprostasis in such persons.

The dietetic details of the successful treatment of habitual constipation are manifold. A diet of foods which make too copious alimentary residues tends to constipation from muscular fatigue of the intestines, with the ill effects arising from putrefactive and fermentative changes in retained excreta. Also, a diet of foods too nutritious or too easily digested tends to constipation by not exercising the intestinal muscular powers sufficiently. The best diet in the treatment of habitual constipation is a mixed diet; that is, a diet of ordinary food taken at fixed times, without the use of any ordinary article of food being forbidden. If, with the use of such a diet, habitual constipation do

not yield to habitual and suitable effort at defæcation, aided by suitable exercises and by suitable restings, articles of food which are found to have a laxative tendency when ingested should be added to the dietary, or increased therein, that is, foods full of cellulose. "Cellulose is proof against all organic solvents" in its passage through the alimentary canal,* and in man is the chief natural excitant of intestinal movement. Such laxative foods are found in green vegetables, in fruits, in fruit jams, and especially in orange marmalade, and in honey. In the milder cases of habitual constipation, a cure of the malady, without the use of drugs, follows the free ingestion of cooked green vegetables, with dinner, or the daily eating of ripe fruit after the evening meal—say, of one or two ripe apples, uncooked, or of one or two oranges, or the taking of orange marmalade freely, at the end of breakfast, or with afternoon tea, or the daily consumption of honey, which last may be eaten freely on bread, at breakfast or at afternoon tea, or it may be used as a sweetener of tea or coffee, instead of sugar.† Honey is an emollient, that is, that

* Lehmann, Physiological Chemistry: published in three vols., by the Cavendish Society.

† Honey should be pure. In our own county excellent honey, the produce of cottagers' hives, is supplied to the public under the auspices of the Warwickshire Bee-keepers' Association.

it has the property of softening and soothing irritated and irritable portions of the external or internal surfaces of the body, when appropriately applied to them; honey is a valuable nutrient, that is, that it possesses conspicuously the property of nourishing the human body when taken into the stomach as food, maintaining the muscular, nervous, and functional energies of the body, especially sustaining animal heat, and moreover, presenting its materials to the stomach in a condition of particular preparedness for assimilation; and honey is an evacuant, that is, that it has the property of promoting the expulsion of refuse and noxious matters through the chief of the natural emunctories. Honey may be taken in "open" honey tartlets, like "cheese cakes." Good gingerbread biscuits eaten freely at bedtime are excellent matinal laxatives; a good variant of them may be made with oatmeal, instead of wheat flour. As to beverages, either oatmeal water or prune tea are helpful, and may be drunk hot, warm, or cold.

These details as to diet are of physiological prophylaxis, which is a science of preventive medicine as found in the laws of life. We cannot have too much of physiological prophylaxis in the treatment of habitual constipation and of coprostasis.

Our pharmacopœias, officinal, non-officinal and popular, are richer in purgatives than in remedies of any other class. I must not digress into a comparison of the relative values of our cathartic drugs, although the subject is a very tempting one. The practitioners of rational medicine have accumulated a vast store of precise and valuable information concerning the actions of purgative medicines, and this important branch of therapeutics is still growing. Each of us has his favourite selection of cathartics; if we have tried their adoption well, we should not lightly change them. For cases of habitual constipation which do not yield without drugs, my favourite remedy is aloes. The capital therapeutic effect of aloes is that it is a purgative of steady action, affecting principally the larger bowel, producing but little excess of its secretions while augmenting peristalsis, with the result of "formed" and slightly softened fæces, of easy passage. Aloes is especially useful in the fæcal sluggishness of sedentary persons. Properly given, the drug may be taken daily for years, without either losing its aperient efficiency or producing any but the best results. In some cases I give one, two, or three grains of Socotrine aloes in a pill, combined with a quarter of a grain of sulphate of iron and one grain of extract of hyoscyamus, at bedtime, every

night.* In using this pill, I find out, in the case of each patient, the exact quantity of aloes which will produce one full alvine evacuation after the first morning meal. The quantity of aloes in the pill will need readjustment from time to time, usually in the direction of reduction.†

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* We are indebted to that veteran therapeutist, the late Sir Robert Christison, for the valuable suggestion of combining iron with aloes when we use aloes as a laxative. Neligan, in reference to the use of aloes in habitual constipation, wrote :—"Christison states that the cathartic property of aloes is much increased by its combination with sulphate of iron, and that its irritating action on the rectum is counteracted by combining it with the extract of hyoscyamus; both of which statements my experience fully confirms."—"Neligan's Medicines," edited by Macnamara, sixth edition, p. 130.

† I was led to adopt this combination of aloes and iron in the treatment of habitual constipation by reading a paper by the Rev. David Bell, M.D., which was published in *The British Medical Journal*, November 5th, 1870, entitled "Remarks on the Beneficial Effects of Combining Tonics with Aperients in Chronic Constipation." Dr. Bell stated in this paper that he had tried various combinations of drugs in the treatment of constipation, and had come to the conclusion that the best formula was the following :—℞. Aloes Socotrinæ, extracti hyoscyami, āā gr. xij.; quinæ disul phatis, gr. vj.; ferri sulphatis, gr. iv. To be well mixed and divided into twelve pills. Dr. Bell had found these pills to produce uniformly good results, without inconvenience. Upon his reading what I had written upon this subject, Dr. Kent Spender, of Bath, kindly drew my attention to his admirable paper on "The Therapeutics of Chronic Constipation," published in *The Medical Times and Gazette*, February 19th, 1870. Dr. Spender recommended minute and frequent doses of watery extract of aloes, given in combination with sulphate of iron. He informed me he had treated cases of habitual constipation with pills of aloes and iron for very many years, with excellent results.

A perusal of a biographical memoir of the late Dr. Marshall Hall brought to my notice a favourite pill of his composition and use for habitual constipation.* I have modified this pill a little, and I have prescribed it with much success. Here is the formula for it, as I prescribe it:—

℞. Aloes Barb.,
Theriacæ,
Ext. Glycyrrhizæ,
Ext. Taraxaci,
Saponis Mollis, singulorum partes æquales.

Solve in aqua, et calore lente inspisse; deinde divide in pilulas, pondere gr. iiss. Sig.: one or two pills to be taken at bedtime.†

Lately I have directed in my prescriptions that pills should be made into the form of beads (sphærulæ perforatæ), and I think the central opening in them facilitates their disintegration in the alimentary canal. It is convenient to keep them strung upon a slender cord.

As a mild laxative, for occasional use, I have arranged the following combination of remedies, and it has proved to be an excellent one:—

* Memoirs of Marshall Hall, M.D., F.R.S. By his widow. London, Bentley, 1861. p. 274.

† Dr. Marshall Hall's pill contains no taraxacum; that is an addition of mine.

℞. Magnes. Pond., ℥ss.
Ol. Ricini, ℥ss.
Mellis Depurat., ℥j.

Misce, fiat confectio. Sig.: a teaspoonful to be taken at bedtime.

Our art, as you know, gives us many other useful combinations of laxative drugs, of which experience in practice will suggest to you the best choice in particular cases. No case of habitual constipation can properly be treated by "rule of thumb"; nor by copying medication or other remedies designed for somebody else. Each case must be skilfully investigated with full acumen as to the causal relations and other associated details of the malady, and each case must be diagnosed carefully and individually prescribed for, watched, and guided, by an experienced medical adviser.

II.

PRACTICAL SUMMARY OF THE ETIOLOGY, PREVENTION, AND TREATMENT OF HABITUAL CONSTIPATION.*

When you enter into your practice, perhaps the treatment and the cure of habitual constipation will engage your attention oftener than other details of our remedial art. Although this subject is of the tritest, it is well worth frequent revision. We must keep it always in our minds in our daily work as medical men, and it becomes us to reconsider it often by the lights, respectively and combinedly, of physiological, clinical, pathological, and therapeutic progress. In this great subject, as in so many others of ours, clinical observation and physiological investigation go on working together in converging directions, with the best results in practice, sometimes the one anticipating, and each confirming, the other.

Constipation is retarded progress of fæces from the cæcum to the rectum, or it is retention of fæces in the rectum (dyschezia), or it is both of these. In our conceptions of the causes,

* A Clinical Lecture : published in *The Lancet*, September 16th, 1911.

progress, and cure of habitual constipation we must include the knowledge that human fæces consist in great part of excrementitious matters excreted by the glands of the intestinal mucous membranes as well as of insoluble and superfluous food, mixed with intestinal mucus and biliary and pancreatic excretions. Human excrement, then, is made up of glandular and other excretions, as well as what may be called alimentary refuse. We must recognise both these factors and not contemplate the dietetic effluent only. The manifold errors of what may be called habits of life and ways of living, of defæcational effort, and of diet, which are causal as to constipation, are well understood. In their continued and persistent rectification may be found the cure, without the exhibition of drugs, of most of the slighter forms of costiveness. In a severer case, in one in which drugs, manipulative efforts, and even instrumental aid cannot be avoided, all that well-ordered and daily habits, well-directed efforts, and well-chosen diet, can accomplish—and they can accomplish much—are indispensable adjuvants of mere physicking in the cure of habitual constipation under skilled medical guidance.

There are three canons which should guide your treatment: (1) You should not leave the medicinal treatment of their constipation to

your patients; (2) you should not prescribe a drug in the treatment of habitual constipation until you find that the constipation in the particular case before you cannot be cured without drugs; and (3) you should not prescribe drugs in the treatment of habitual constipation without the conjoined use of a judicious combination of the numerous adjuvants of natural alvine relief which are at your disposal, and which you should select especially accordingly to your experience of their use in practice, and combine them in particular cases of costiveness suitably to the individualities of your patients.

You should ascertain fully the characteristics and ways and circumstances of life of each patient, and then arrange the details of your treatment in each case upon such knowledge. In all therapeutics the individuality of the patient is the supreme law. None but a skilful prescriber can treat constipation best. To "open the bowels," to force the appearance of a copious "stool," cures not constipation, but only relieves for a few hours one of its symptoms.

The second of these canons you should remember, that of withholding drugs until drugless methods shall have failed, is a counsel of perfection which is basic in its aim, and should be followed generally; but the insistence of constipated patients for a purgative dose teaches

one that patients are sometimes right in this matter (perhaps *fas est ab ægro doceri*), and that medicinal catharsis may give a fair start for a cure in some cases, which you will be able to distinguish in practice, by disciplinary and dietetic methods. Sometimes an immediate evacuation is desirable, but no real cure of the malady is possible unless disciplinary and dietetic methods have play.

In costiveness our therapeutic clues arise well from an old definition of it—namely, "in constipation the fæces are hard, and may be retained from that cause, from weakness of the muscular coat of the large intestines, or from diseases of the anus, making defæcation difficult or painful." Habitual constipation is a penalty of our imperfect civilisation. It is due to habitual abstinence from emptying the rectum whenever the natural impulse thereunto, the physiological call for defæcation, is felt; it is due to habitual attempts at defæcation when seated upon the usual seat, eighteen inches high; it is due to habitually diminished activity of the psoai and iliaci, of the respiratory muscles, and of the muscular fibres of the large intestines, and to rectal paresis from rectal distension; it is due to habitual abstinence from fruits and other vegetable foods rich in cellulose. It arises in some women from habitual diminution

of beverages, from the design of minimising urination. It is due to insufficient mastication of food, especially of meat. The curative treatment of habitual constipation may have to begin in the mouth, and it may be upon the dinner plate. Each of these causes is avoidable. Each of these causes must be sought out and avoided before a drug be taken for the treatment of habitual costiveness; if the avoidance of these causes should not be curative, such avoidance should concur continuously with all medicinal exhibition.

Many hearts throb to the fetich of a punctual fæx. By long-continued habit in health the act of voiding fæces can become to some extent a rhythmical process, done at a fixed time, by an acquired periodicity each twenty-four hours. Perhaps the best time is after breakfast. Before bed is the best time for a patient who has hæmorrhoids. Defæcation strains and protrudes piles, and the horizontal rest of a night in bed yields venous subsidence. Chosen the time, the voiding effort should be made daily, at the chosen time, whether the "call" to defæcation be felt or not. Besides this, defæcation should always be attempted immediately whensoever the rectal prompting thereunto shall arise. Such feeling, such *mens conscia recti*, should never be "put off." By putting it off

the rectum empties itself, if it can, into the sigmoid flexures, or the feeling of rectal pressure subsides in the exhaustion of the local neuro-muscular sense into an unfelt rectal retention of fæces, and habitual constipation, with or without dyschezia, with or without rectal coprostasis, is caused and kept up. Perhaps this holding up of returned fæces in the sigmoid bendings may be a determinant of cancer there. Cancer there is much more frequent in men than in women. Women are more likely than are men to neglect to try defæcation at a rhythmical time; but men put off the act more than women do. Men like to defæcate at a given time, and at no other time. Again, as between the sexes, habitual constipation is more frequent amongst women than it is amongst men, from irregularity in the time of alvine effort, from procrastination therein, from intrinsic feebleness of the muscular factors of defæcation, from the wearing of waist-belts, of "stays," of corsets, of tight skirts, and from inimbition.

The best position of the body for the complete accomplishment of the act of defæcation is the natural one, in crouching. In such a position only are the parts acting in the proper voidance of fæces in the best position for doing it; the anus is in the best position for opening and the rectum for emptying its contents, all the

muscles concerned in the act are in the best position for their efficient play, and the parts liable to injury from strain are guarded by their natural protections, certain hernial orifices, for example. Failure of defæcation upon the usual seat will often at once issue successfully if the effort be renewed forthwith in the physiological attitude.

In a case of habitual constipation you should amplify and explain these considerations to the patient, and counsel acting upon them before placing perilous reliance upon purgative drugs. Further, you should keep in mind that certain faulty and habitual somatic postures are apt to lead to, and to keep up, sluggishness of fæcal movement in the larger bowel, even to coprostasis—namely, stooping forwards, slouching, and slackness of attitude and gait, and especially that form of arching backwards of the lower spine and doubling-up of the belly which occurs while sitting "all in a heap" in a large and low "easy" chair. Such habits of bodily postures are declared by the production of transverse wrinkles in the skin across the epigastrium. Look for these wrinkles in every case of habitual constipation, and counsel correction of postures which cause them. These postures hinder and hamper normal movements of the contents of the belly in many ways and

with many ill-effects. They tend to the production of two more angles in the greater gut, one in the ascending colon and one in the descending colon, by an antero-posterior bend on each side, below the hepatic and the splenic flexures respectively.

So there must be physical uprightness in the cure of habitual constipation before drugging, and, if you give drugs, during their exhibition, and always, excepting during horizontal rest, afterwards.

Daily bodily exercise, especially out of doors and in the sunshine, favours defæcational normality. In the successful treatment of habitual constipation further helps may well be given by exercises which promote biliary flow, such as developed respiratory movements, by physical exercises which bring into play the muscles of the abdominal walls, and by such exercises as promote movement of those portions of the larger intestine in which fæcal stagnation is most apt to occur, that is in the cæcum and in the sigmoid flexures, for which last the psoai and the iliaci must move well, as in running up stairs two steps at a stride, or as in "knees up" exercises. If there be visceral sagging, quadrupedal exercises, appropriate restings, an appropriate belt, or other measures may be indicated, as determined by complete examination

The best diet in the cure of costiveness is what is known as a mixed diet, the ordinary diet in use in English households. If, in a person living upon such diet, habitual constipation does not yield to habitual and physiological alvine effort, aided by suitable physical exercises of the kind I have described briefly to you, then food of a laxative character—that is, foods full of cellulose—should be increased in the dietary, such as cooked green vegetables, fruits, fruit jams, and chiefly marmalade of oranges. The fibres of cellulose appear to be the chief natural stimulant of the muscular movements of the intestines, as was shown, especially in favour of preparations of oranges, by certain striking experiments a few years ago.

Cathartics increase the peristaltic movements of the human intestinal canal, evacuate its contents, usually augment its mucous secretions, and promote the separation of the secreted products which Liebig taught us it is the province of the intestines to separate from the blood and from the tissues. These medicines may be distinguished according to their energy of action as laxatives, which promote the gentle evacuation of the intestinal contents, and purgatives, which increase secretion and accelerate evacuation. This was Royle's and Headland's practical and excellent definition of them, and

it is a good one to keep in mind in our prescriptions. Numerous are the cathartics at our disposal; their distinctions and several utilities are well known in medical practice.

For a case of habitual constipation which does not cure without medicines my favourite remedy is Socotrine aloes, suitably combined and exhibited as a pill, at bedtime. "Myrrh and aloes and cassia" can still make coprostatics glad: myrrh, with its old repute of giving an impetus to the digestive organs, and an increase of muscular power to the digestive canal; Socotrine aloes and cassia pulp, of each equal proportions, made into a pill of the weight of 5 grains with syrup or with castor oil. One pill or more may be given for a dose, as found to be needed, and their administration should be gradually reduced and omitted altogether so soon as may be. I give you this formula only as an example.

Many other cathartics are at our therapeutic disposal in pilular and in other forms, and you must learn to choose from amongst them by your experience in practice according to the particular indications in each patient. No case of habitual constipation can be treated by "rule of thumb." It will always be your duty to your patient and to yourself to investigate each case skilfully, by complete methods, with your full

acumen, and by adequate clinical study of it, as to the causal relations and other associated details of the malady in the individual instance of it in question, as to sex and as to temperament, and each case must be diagnosed *in propriâ personâ* and individually prescribed for, watched, and guided by an experienced adviser in the science and art of medicine. Faulty habits of life must be corrected appropriately, diet must be confirmed or rearranged if need there be, and you must make a suitable selection of medical gymnastic exercises, to restore and improve the health of the body at large, and of the intestines in particular, and fitting medicaments must be prescribed if their employment be unavoidable, while visceral saggings may indicate other details. And all this must be done with a lively remembrance of the manifold conditions which ever modify the effects of medical treatment, for, as one of the best therapeutists of a recent day, Dr. Scoresby-Jackson, taught, "the general habits of the patient, his profession, business, or occupation, his diet, and other circumstances connected with his daily pursuits, influence the actions of medicines; and there are certain indications of treatment in the cases of the rich and the poor, the spare and the plethoric, the man of active and the man of sedentary habits, which are far more easily learned from careful clinical observation than from volumes of literature."

For counsels of perfection in the cure of habitual constipation you must win and sustain the patience and perseverance of your patient, and you must have the courage to insist that the habitual use of cathartics alone to meet a troublesome symptom is harmful, and may lead to the worst results.

III.

SOME POINTS IN THE TREATMENT OF THE SEVERER FORMS OF CONSTIPATION.*

Fæcal retention.—Case.—Enemata.—O'Beirne's tube.—Cancer.

The ordinary symptoms of extreme fæcal retention are well known. Our experience, in the main, justifies us in expecting that such symptoms shall be acute, or subacute, at the least, in their urgency and duration; and that they shall be associated for a time with a complete absence of alvine dejections, or, at the least, with a very obvious insufficiency of such evacuations, both in quantity and frequency. But we shall fall into error sometimes if we expect considerable fæcal retention always to be marked in this way. Of exceptional forms of extreme fæcal retention, I have met with two distinct varieties. In both the process of accumulation has been but slow: in one the graver signs of intestinal obstruction have at last become developed urgently and rapidly, as it were as a climax; while in the other and rarer form of slowly-

* Part of a paper published in *The British Medical Journal*; just now revised.

developed fæcal retention the condition has been chronic throughout, and the disorder has not been recognised, perhaps, until after a belly only distended by a dilated colon filled with fæces has been regarded as the seat of a huge tumour, the nature of which has been interpreted variously. I have seen the extremest fæcal retention, filling the belly, encroaching on the thorax, and displacing the liver, lungs, and heart, presenting itself as a chronic condition, lasting for many years.

Let me quote, very briefly, an extreme and very instructive instance of this kind, from my notebook. Some years ago, a medical friend sent a case to me at The Queen's Hospital, as one of obscure abdominal tumour, which had long resisted treatment at two neighbouring medical charities, and about the nature of which he was in doubt, and desired my opinion. I found the patient a pale, ill-developed girl, of fourteen years. Her mother stated that, when the child was only two years of age it was noticed there was some enlargement of her belly. The patient's bowels had been confined habitually, a week or more often elapsing without the passage of a motion. Her alvine evacuations consisted usually of small portions of hardened fæces; from time to time, frequent and scanty liquid stools were passed. The quantity of

urine appeared to have been normal; the appetite poor and capricious. The abdominal enlargement had gradually increased up to the time of the patient's application to me. I at once admitted the girl as an in-patient. I found she complained of occasional griping pains in the belly. She had never had any vomiting. Her fæces were small in quantity and watery. The tongue was clean. There was no pyrexia. The body was fairly nourished. There was a general enlargement of the abdomen, and the lower part of the thorax was expanded. The superficial veins of the abdomen were slightly enlarged. A solid tumour could be felt to occupy the whole of the right side of the abdomen. It had no distinct margin above, and reached, laterally, about two inches to the left of the middle line; below, the edge of the hand could be readily passed between the tumour and the pelvis. The tumour was uniformly dull on percussion; palpation gave the impression of a doughy consistence, and firm and sustained pressure with the tip of a finger upon the mass produced a depression, which lasted for some minutes after the finger was withdrawn. The heart was displaced upwards considerably; its apex was found to strike the chest wall at a point one inch and a half above, and one inch to the inner side of the left nipple. The cir-

cumference of the abdomen at the umbilicus was thirty-one inches. The rectum was found to be largely distended, and filled with hardened fæces. The patient was directed to take a pill, consisting of a grain and a half of Socotrine aloes, half a grain of extract of hyoscyamus, and a third of a grain of extract of nux vomica, together with a drachm of sulphate of magnesia dissolved in one ounce of infusion of roses, thrice daily. An enema of cold water and table salt was administered night and morning. Before the administration of the first enema, I freely broke up the contents of the rectum with my forefinger and with the handle of a large tablespoon, and I evacuated a very large quantity of hardened fæces, together with three plumstones. On the following day, her passages of pultaceous fæces filled two chamber-pots to their brims, and the abdomen was thereupon found to be diminished markedly in size. On the next day, two chamber-potfuls of fæces followed the morning enema. On the following day three copious motions were passed. On the next day there were two free actions of the bowels, and it was noted that the abdomen was smaller and softer, and that the heart's impulse had fallen to the level of the left nipple. In three days more, the enemata were discontinued, and they were not used again. Then

careful physical exploration failed to find any abnormal signs in the abdomen. Faradisation was gently applied to the abdominal muscles daily. From this time the patient did well, without interruption, and was discharged from the hospital fourteen days after her admission. She attended a short time as an out-patient, taking iron and an aloetic purgative, and remained well, without any fæcal reaccumulation. In this case we may notice that extreme fæcal retention, sufficient to displace the heart into an infraclavicular region, to distend the superficial veins, and to form a very large abdominal tumour, was unattended by vomiting, by scantiness of urine, or by abdominal tenderness, and that the only local disturbance was "occasional griping pains in the belly." We may notice, too, the record of an important point in diagnosis. A large portion of the patient's abdominal cavity was obviously occupied by some solid mass. I had to decide upon the nature of the abnormality. I found that firm and sustained pressure with the fingers over the tumour produced a palpable depression in its mass, which lasted for some minutes after pressure was withdrawn. This very exceptional physical sign is almost absolutely diagnostic of considerable fæcal accumulation. The successful progress of the case illustrates, also, the value of

using together a variety of therapeutic measures. In the treatment of fæcal retention, the best results are only obtainable by the adoption of a well-considered combination of remedial resources. One did not rely on only one method of emptying the distended intestine. I broke up and dug out all the excrement I could reach through the anus; and kept up the concurrent and continued use of aloetic purgatives, of enemata, and of faradisation.

It may be our learned faculty does not appreciate adequately the immense advantages to be derived in the treatment of many of the severer forms of constipation and of intestinal obstruction by the efficient use of the enema. In France, I understand the enema is the routine domestic aperient. We do these things better in England. The custom of relieving slight constipation by an immediate resort to an enema has never become popular on this side of the Channel, and it is well it is so. My experience has led me to discountenance the systematic use of rectal injections in the ordinary domestic treatment of the slighter forms of fæcal sluggishness. Such cases may be treated better, and especially with less tendency to chronicity, by other means. On the other hand, however, in the severer forms of fæcal retention, we ought always to use aperient enemata,

and we must take care we use them efficiently. In persons past the meridian of life, and especially in persons of sedentary habits, what may be called simple fæcal retention is a very frequent form of constipation. In such persons this form of constipation is relatively very frequent, both as compared with other varieties of constipation, and also as compared with the same form of constipation at other times of life, and in individuals of other habits. In such persons coprostasis, (that good old name for fæcal stagnation,) is especially apt to produce complete intestinal obstruction. It is in these cases, especially, that life may be saved by enemata. I do not know of any form of intestinal obstruction in which enemata can do harm. In most cases they take a chief place amongst our most potent means of doing good. In many cases which at first are unpromising, and even when the predisposing cause of the obstruction is some organic and incurable disease, we may repeatedly relieve a threatening fæcal accumulation, and long keep off a fatal fæcal stagnation, by the due use of enemata. It is, perhaps, not too much to say that enemata far surpass any other remedies in curative value in the simple coprostasis of advanced life. Within the limits of this paper, I cannot particularise all the practical details of apparatus, of quantity, quality,

and frequency of intestinal injection, and the various manipulative niceties of administration, concerned in the question of the therapeutic use of aperient enemata. But I would take this opportunity of affirming that in all severe cases of constipation, and in all cases of intestinal obstruction in which we use enemata, we can only administer our injections efficiently by means of the long tube of O'Beirne. Let me recommend O'Beirne's classical treatise on defæcation to those who are unacquainted with it.* Than from a study of its pages I do not think I have ever reaped more practical profit from any of my medical reading. The gist of O'Beirne's book is the recommendation of the long enema tube, which for eighty years has been known by his name. Never entrust the use of O'Beirne's tube to a nurse. The efficient passage of the instrument into and through the sigmoid flexure of the colon is a delicate and difficult operation, which the medical attendant ought always himself to perform for his patient. Much unnecessary detail has been taught about the composition of enemata. When we use an enema, for the purpose of clearing the bowel of fæces and flatus, the quantity of the injection, if the liquid used be a suitable one, is its chief

* "New Views on the Process of Defæcation," &c. By James O'Beirne, M.D., Dublin. 1833.

quality. As to enemata, I am accustomed to tell my pupils of this well-tried clinical rule of mine, namely, that when they give an enema they should always ask themselves whether it is to be retained or returned: if it be designed that the injection shall be retained, as in the case of a nutrient or sedative enema, its quantity can scarcely be too small; if, on the other hand, it is intended to move the bowels to the expulsion of their contents, the quantity of an enema can scarcely be too large. The quantity of an aperient injection is precisely so much of it as can be passed into the bowel, without undue force. For such an enema to be so large as possible, is only for it to be large enough.

Experience in practice has taught me to add here an important caution. What, in a particular case, may appear to be simple constipation may be really impeded fæcal passage through a cancerous stricture of the lower bowel. Especially is this caution necessary when the patient is at or beyond the middle age. I have heard Professor Chiene, of Edinburgh, say, in advice to young practitioners, "Gentlemen, never lose an opportunity of passing your finger into the rectum." This is a wise caution, especially in the cases we have been considering in this and the last previous chapter—a sound caution for safe practice, shrewdly, if quaintly, expressed.

IV.

CLINICAL OBSERVATIONS ON INTESTINAL OBSTRUCTION.*

Pathological varieties of intestinal occlusion.—Estimation of probabilities as to nature and site of occlusion.—Symptoms of intestinal occlusion.—Spontaneous recovery.

Long is the list of the lesions which may determine the clinical urgencies of intestinal impermeability, and which, by causing that very grave condition, may demand from us relief if life is to be preserved. Intestinal obstruction may arise at any point in the intestinal tube from some change in one of three situations, namely, from some lesion outside the tube, from some lesion in the tubal wall, from some morbid condition of the intestinal contents. As intestinal compressions, constrictions, degenerations, displacements, distortions, impactions, obturations, and stenoses, these manifold pathological conditions have been fully described in medical literature. If, with practical purpose, we translate the pathological causes of intestinal

* Part of a paper published in *The British Medical Journal*; just now revised.

occlusion into their clinical manifestations and history, we shall find that they fall into three fairly defined groups. *A: Causes which come into operation quite suddenly, and which lead at once to complete intestinal occlusion.* Here we have sudden compressions, displacements, and distortions, as all kinds of strangulations and torsions or kinks, some cases of intussusception, especially in children, and some cases of plugging by gall-stones. *B: Causes which manifest themselves acutely, but which do not give rise to immediate and complete occlusion, although they produce very grave disturbances of intestinal permeability.* Here we have partial strangulations of all kinds, many cases of intussusception, many cases of peritonitis, and cases of partial obturation by gall-stones and by foreign bodies. *C: Causes which are developed slowly, and which give rise, often for weeks, months, or years, to marked signs of impaired intestinal permeability, and which either lead to a series of subacute seizures of intestinal occlusion, yielding for a time to treatment, but successively increasing in severity and danger, or culminate in a single sudden and final attack of complete and unyielding obstruction, or lead to death in some indirect way, as by perforation, peritonitis, or by asthenia.* Here we have in-

testinal cancers and neoplasms generally, strictures and stenoses of all kinds, chronic local or general peritonitis, compressions from the pressure of slowly growing tumours, and fæcal impactions and chronic fæcal retention from degenerative changes in the muscular coats of the larger intestine.* These various conditions teem with practical clinical interest, both in the niceties of their differential diagnosis, and in the details of their varying therapeutic requirements. Into many of these points I cannot now enter; but it may be stated generally that, in any given case, by a consideration of the age of the patient, of the history of the illness, of the particular symptoms and physical signs, and of the results of our treatment, checking such considerations by a recollection of the pathological possibilities of intestinal occlusion and by some accurate knowledge of their relative frequencies, we can usually make a practically correct diagnosis, both of the particular portion of the intestine which is affected and of the pathological nature of its lesion. I cannot, however, leave

* This classification is a modification and amplification of one to be found in Dr. Leichtenstern's valuable essay on "Constrictions, Occlusions, and Displacements of the Intestines," contained in Dr. Von Ziemssen's Cyclopædia of the Practice of Medicine. See English translation, Vol. VII., p. 487, *et seq.*

this part of my subject without making some reference to certain well-ascertained statistics and approximate generalisations which are of great practical importance, and which have often stood me in good stead at the bedside, in the diagnosis of the kind and place of an intestinal occlusion. Firstly, it is generally true that sudden and very marked obstructions, such as strangulations, torsions, intussusceptions, and pluggings, affect the smaller intestine, while more chronic but less accentuated difficulties of permeability, such as strictures, cancers, and intestinal degenerations, affect the larger intestine. Again, an intestinal stricture is a circumscribed diminution of the lumen of the bowel. It arises either from contraction of the mucous and submucous tissues, or from the encroachment upon the intestinal canal of some new growth from the intestinal walls. The latter process is usually cancerous, the former is usually a consequence of ulceration. "Stricture may be met with in any part of the intestine, yet it occurs in different parts with very different degrees of frequency. The published statistics of fatal cases show that its occurrence as a fatal disease in the small intestine is comparatively rare (according to Dr. Brinton* in

* Intestinal Obstruction. By W. Brinton, M.D., F.R.S. 1867.

8 out of every 100 cases); and that, as regards the large intestine (to quote again Dr. Brinton's figures, with which those of other writers agree pretty closely), out of 100 fatal cases, 4 are in the cæcum, 10 in the ascending colon, 11 in the transverse colon, 14 in the descending colon, 30 in the sigmoid flexure, and 30 in the rectum. Dr. Brinton calculates that stricture occurs three times in men to twice in women; and that the average age at death is 44⅔ years."*

From these figures we may gather the important practical generalisation that at least four-fifths of the strictures of the larger intestine are situated to the left of the middle line of the body. Again, excluding the grosser forms of hernia, of all the different forms of obstruction of the bowel, intussusception is the one which is "most commonly attended with the presence of manifest tumour;"† and furthermore, excluding cancerous disease of the larger intestine, the discharge of blood through the anus is characteristic of intussusception, and is present usually from the onset of the affection. Again, we have Sir Jonathan Hutchinson's valuable generalisations, from which I select the following, as being the most reliable, and therefore the most important. "When a child

* Obstruction of the Bowels. By J. S. Bristowe, M.D., F.R.C.P. Reynolds's System of Medicine, Vol. III., p. 74, *et seq.* 1871.

† Dr. Bristowe. *Op. cit.*, p. 100.

becomes suddenly the subject of bowel obstruction, the malady is probably either intussusception or peritonitis. When an elderly person is the patient, the diagnosis will generally rest between impaction of intestinal contents and malignant disease. In middle age, the causes of obstruction may be various, but intussusception and malignant disease are now very unusual. If repeated attacks of dangerous obstruction have occurred, with long intervals of perfect health, it may be suspected that the patient is the subject of a chronic diverticulum, or has bands of adhesion, or that some part of the intestine is pouched and liable to twist. If, in the early part of a case, the abdomen become distended and hard, it is almost certain that there is peritonitis. If the intestines continue to roll about visibly, it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects, with obstruction in the colon, of long duration. The tendency to vomit will usually be relative to three conditions, and proportionate to them. These are: (1) the nearness of the impediment to the stomach; (2) the tightness of the constriction; and (3) the persistence or otherwise with which food and medicine have been given by the mouth."*

* Notes on Intestinal Obstruction. By Jonathan Hutchinson, F.R.C.S. *The British Medical Journal*, August 31st, 1878.

No clinical spectacle is more terrible than that afforded by a case of acute and complete intestinal obstruction. All of us, probably, have seen some examples of it. In the midst of perfect health, without obvious cause or warning, or after some unusual and sudden muscular effort, or after a blow on the belly, or after a trifling diarrhœa, or after some slight constipation, or following some ordinarily insignificant error of diet, a vigorous adult is seized with severe pains in the abdomen. The pains are mostly griping and colicky in character, they usually come and go at short intervals, and they are usually referred to the neighbourhood of the navel. Sometimes the pains are excruciatingly violent and intermittent, or they are persistent, or they spread over the whole of the belly, or they are of a "bearing-down" character, and are attended by painful but fruitless efforts at stool. Acting on the familiar hypothesis that something has "disagreed" and requires clearing off, the patient usually forthwith takes a domestic purge. The pains continue and grow more frequent and severe, and the bowels remain unrelieved. At this stage, vomiting generally appears, and a doctor is summoned. The gravity of the patient's condition is usually recognised, and pains are quelled and peritonitis staved off by opium, while efforts are made to

open the bowels by enemata; sometimes, unhappily, the pathological possibilities are not adequately appreciated, and the stronger cathartics are injudiciously administered. Save for the passage of a little delusive flatus, or of the contents of the bowel below the difficulty, the belly remains ominously closed. Vomiting continues, and, in a variable time, the vomited matter becomes fæcal in appearance and odour, while at first it consisted only of ordinary stomach-contents, or of a bilious watery fluid. The case grows more desperate; marked collapse soon declares the patient's increasing danger. The extremities chill, the respirations become shallow and frequent, and the voice fails and thickens, while the pulse is small and rapid, the abdomen distended and drummy, and the face pinched, with pointed nose, sunken eyes, and thin, retracted lips. Hour by hour, and day by day, the sufferer grows worse, bathed in cold sweats, with parching thirst, frequent fæcal eructations, hiccup, shortening and shallower breathing, voice all but extinguished, dry brown tongue, Hippocratic face, failing and uncountable pulse, and mind unclouded to the end or gently wandering in the last few hours, until death closes one of the saddest and sharpest scenes of human misery which one ever has the pain to see.

But the terrible and lethal condition* I have endeavoured to describe is not wholly hopeless. It is true it is very generally fatal, within six days at the most, yet patients have got well in some cases without surgical operation, even when internal strangulation has brought them to the very verge of death. Surgical art, I freely and thankfully acknowledge, has rescued not a few whom the skill of the physician has proved powerless to save, and this great art promises, with abundant record of achievement, to include in a not distant progress a material reduction in the present high mortality of intestinal closure. "There is no cause of acute occlusion of the intestine," writes Leichtenstern, "which cannot spontaneously disappear as well as originate. An intestinal knot can loose itself, an incarcerated or strangulated loop can become free, an invagination can become disengaged, compression cease, twisting or dislocation of the intestine with angular bend can straighten itself, a lodged gall or intestinal stone or foreign body may be dislodged and evacuated, and severe fæcal obturation may be overcome."† But we must never forget, I would strongly insist, that the relative proportion of cases of spon-

* "Morbus terribilis, creberrime letalis."—De Haën.

† Leichtenstern. *Op. cit.*, p. 508.

taneous recovery from acute intestinal occlusion is very small indeed—so small as to support only a very uncertain hope of life in any particular case. I fear such a hope is often a harmful one, for I am afraid that its sympathetic exaggeration has sometimes inspired a disastrous inactivity, which has frittered away in fruitless endeavours and vain expectations the time for the fairer chances of life which may be given by timely surgical help.

V.

LUMBAGO COPROSTATICA: NOTE ON THE CAUSE AND CURE OF A FORM OF BACK-ACHE.*

Backache of loaded colon. — Character and position of the pain.—Cure.

Lumbago is a well known myalgic pain in the loins. I propose the name lumbago coprostatica for a painful affection of the upper part of the same region, due to fæcal accumulation in the colon. The pain of lumbago coprostatica may be reflex or it may be direct in origin as a kind of pain, or it may be both of these. It yields to the recognition and removal of its cause: *cessante causa cessat et effectus.*

Early in the year 1881, in a note which was published in a weekly professional journal, I asked the attention of my brethren to a form of backache which had not, so far as I knew, been described before.† I desire to refer now to the subject again, and to record that my further

* Published in *The Lancet*; now revised.

† *The British Medical Journal*, February 19th, 1881.

experience in practice has confirmed my previous observations upon the point in question.

Our therapeutics is always especially satisfactory when we remove pain by removing the cause of it. Subjective symptoms are always important diagnostic signs, and they are often clear therapeutic indications. Amongst such sensations backache is frequently a leading symptom, and one also which is dwelt upon pressingly by patients. Of backache there are divers forms, with different causal and curative indications. The late Sir George Johnson, in an able clinical lecture, and Mr. William Squire, in a practical memorandum, have drawn the attention of the profession to many of these.* But they have not mentioned a variety of backache in which the cause of the pain is traceable to the condition of the larger bowel. I find in my practice that some patients complain of a pain, aching, dull, and heavy in character, and extending "right across the back." When asked to point out the position of the pain, they indicate it by carrying a hand behind the trunk and drawing the extended thumb straight across the back, in a transverse line, about half-way between the inferior angles of the scapulæ and the renal region.

* *The British Medical Journal*, February 12th, 1881.

This pain I venture to attribute to a loaded colon; I conclude I have found its proximate cause in fæcal accumulation in the larger intestine. The quick cure of the pain depends upon the recognition of the final cause of the malady. The pain disappears after the exhibition of an efficient cathartic. This particular form of backache is a concomitant of habitual constipation, although not an invariable one. It is significant especially of the alvine sluggishness of sedentary persons. In such a condition, I find aloes, given in combination with iron, to yield the best therapeutic results. I prefer Socotrine aloes, and I prescribe one, two, or three grains of it in a pill, combined with a quarter of a grain of sulphate of iron, and one grain of extract of hyoscyamus. This pill should be taken every night. We must aim at producing a full alvine evacuation daily, after breakfast. When a saline cathartic is indicated, I usually employ the old-fashioned Rochelle salt, the officinal soda tartarata. This "goes" well with tea, coffee, or cocoa. One or two teaspoonfuls, or more, may be taken, an hour before breakfast, dissolved in a large cupful of one of those beverages. Or Rochelle salt may be prescribed in an effervescent combination; here is an excellent formula of this kind, for a flavoured variant of "seidlitz powder," namely:—

℞. Sodii et Potassii Tart., ʒjss.
Sodii Bicarb., ʒss.
Acid. Tart., vel Acid. Cit., ʒiijss.
Ol. Limonis, ♏iv.

Misce, fiat pulvis. Sig.: two teaspoonfuls to be taken dissolved in a tumblerful of cold or warm water.

When lumbago coprostatica is recurrent, some of the prophylactic and therapeutic measures exposed in my chapter in this book, on the treatment of habitual constipation, would be indicated, under medical selection.

VI.

PILEWORT AND PILES.*

Principles of treatment in the cure of piles.—Pilewort.—Preparation of the ointment.—Manner of using ointment.—Pilewort suppositories, and variants thereof.—Manner of using them.

Hæmorrhoids often cause much suffering, and may be a danger to life. Relatively to other diseases, they affect a very large proportion of invalids, and so may be said to be common or frequent. The successful medicinal treatment of them has made much progress in our times, and in this progress I hope to have helped. A hæmorrhoid or pile is a varicose rectal or ano-rectal vein, with some connective tissue and sensory nerves, and with a cutaneous, muco-cutaneous, or mucous covering, according to its position.

I desire now to publish a formula which I have designed and used for a certain non-officinal preparation. This preparation I have

* From papers published in *The Birmingham Medical Review*, May, 1901, and in *The British Medical Journal*, 1904; with later additions.

employed in practice for many years past, and I am using it now, with much therapeutic success. While many cases of hæmorrhoids are distinctly surgical in nature, management, and cure, and are not rightly and not usually included within the scope of a physician's practice, there are many morbid conditions, of what may be called a hæmorrhoidaloid character, affecting the mucous membrane of the lower part of the rectum and the anal margins, with which the practical physician has to deal in his daily work, as troublesome incidents in the course of other greater or more general maladies; and he is often even called upon to relieve by medicinal means, and without the invitation of surgical measures, hæmorrhoids which are distinct tumours within or without the anal aperture, and which tumours, for various and sufficient reasons in particular cases, are not submitted to surgical cure by the knife, or by the ligature, or by the cautery. In such cases, various ointments, of officinal or of magistral formulæ, are usually used, with more or with less success, as local applications to the affected parts. Of the ointments I have used in such cases, I have mostly used for several years, and as I have found with prosperous therapeutic results, one made from an English wild plant, the ranunculus ficaria. Of course, we all know, if

we be sound therepeutists, that the use of any topical applications, in the treatment of piles and local hæmorrhoidal conditions, is only supplementary to the relief or cure of the well-known constitutional conditions and visceral obstructions which occasion the disease. As Erichsen rightly taught: "In conducting the treatment of a case of piles, that surgeon will succeed best who looks upon the disease not as a local affection, merely requiring manual interference, but as a symptom, or rather an effect, of remote visceral obstruction and disease, the removal of which may alone be sufficient to accomplish the cure, without the necessity of any local interference; or, should it be thought necessary to have recourse to operative procedure, this must be made secondary to the removal of those conditions that have primarily occasioned the congestion and dilatation of the hæmorrhoidal vessels."*

I was led to the construction of a formula for an ointment of ranunculus ficaria, and the use of that ointment in my practice, by dint of habitual herbal reading and botanical observation. It may well be maintained that a physician who wishes to advance his art may still study herbs and herbals with much advantage. The ranunculus ficaria—sometimes called ficaria

* The Science and Art of Surgery.

verna, and popularly known by the names lesser celandine and pilewort—is a well-known British, wild, perennial plant, showing in the spring, in meadows, in hedge-banks, and especially in woodlands where the trees are not crowded, its bright, glossy, yellow, starlike blossoms, and shining, green, kidney-shaped or heart-shaped leaves. The perennial root bears amongst its fibres many little fig-shaped tubercles; hence the name ficaria. The larger of these tubercles are of an elongated polypoidal form, and about half an inch in length. They are brownish externally, and fleshy upon section. To prepare the ointment, I direct that the whole fresh plant be used, gathered at the time of its greatest perfection—namely, when it is blooming in the spring. The plants, cut into small fragments, are kept immersed in melted pure hog's lard, at a temperature of about 100° F., in the proportion of one part by weight of the plant to three parts of lard, for 24 hours. At the end of that time the portions of infused herb in the melted lard are subjected to sufficient pressure to produce the further yielding of their juices to the fatty infusion, which infusion is thereupon strained, and allowed to cool and solidify, to form the ointment. Care must be taken not to raise the temperature of the mixture too high, lest the colour of the ointment be spoiled. The

ointment should be green, of a shade which may be described as a bright green olive-green. It should be applied to the affected parts by inunction, with the aid of a finger, about twice daily, preferably just after an alvine evacuation, and upon getting into bed at night. For its English name, the ointment might be called celandine cerate, and the word cerate might be justified literally by preparing the ointment with white bee's wax and oil, say almond oil, in due proportions, say, seven ounces of the wax to twenty ounces of the oil, instead of with hog's lard, infusing the plant in warmed oil.

In some cases in practice in which the use of this pilewort ointment may appear to be indicated, the prescriber may judge it to be advantageous to exhibit the remedy in the form of a suppository. To harden the ointment up to an adequate consistency for a suppository, I am accustomed to direct that one part by weight of spermaceti be mixed with four parts of the ointment, by fusion by heat. Of such a mixture one and a half drachms is a serviceable quantity for a rectal suppository. In a mixture of spermaceti and pilewort ointment, in the proportion of 1 to 4, the melting point of the solidified mixture would be kept well below the normal temperature of the rectum, taking the melting point of spermaceti at 120° F., and that

of the ointment at 83° F. The mixture of them here recommended would melt at a temperature of about 90.4° F., and it will be found in practice that a suppository so made will be sufficiently firm for easy introduction within the rectal cavity. The only reason why a rectal suppository should be sufficiently hard is, that it should be stiff enough to be easily placeable in the site of its employment; once in that position, its qualities of softness and lowness of melting point favour the application of the remedy it carries under conditions propitious to remedial action. For such a suppository, the formula may be as follows:—

℞. Ung. Ranunc. Ficar., gr. lxxij.
Cetacei, gr. xviij.
Misce leni calore, et fiat suppositorium.

This suppository is good, for its intrinsic virtues, but an experienced prescriber will know how to make it an adaptable basis and to combine in it an analgesic, or an astringent, such as alum, or a clotting hæmostatic, such as chloride of calcium, and so on from our great therapeutic repertory, *pro re nata*.

The use of a well-fitting and well-greased finger-stall helps the accurate placing of a suppository in locum actionis; and a little inunction of the anal margins by the tip of the medicament before passing the suppository into

the rectum tends to the comfort of this valuable mode of medication.

Of the ancient reputation of the therapeutic virtues of pilewort in hæmorrhoidal affections, and of the popular appreciation of those virtues in the domestic medicine of country places, abundant record is to be found in many English herbals and in many botanical accounts of our native flora. Medical archæologists will enjoy this little pilewort's lore, with its "doctrine of signatures," to which doctrine we owe our early knowledge of opium, and with its popular repute amongst the herb-curers of the people, a remedial vogue of the kind in which our immortal Birmingham Withering found and gave to us even the modern use of digitalis.

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